

IN THE CLAIMS

Please cancel ~~claims 5~~ and ~~16~~ without prejudice.

Please amend claims 1-4, 6-15, 17 and 18.

- B1
1. (Amended) A transistor device, comprising:
a substrate having a source region, a drain region and a channel region, in which at least one of the source, drain and channel regions has a void to place one of the regions into a compressive or tensile stress to alter carrier mobility due to the stress; and
a gate region formed over the channel region.
 2. (Amended) The transistor of claim 1 wherein the void is located substantially in a center of the channel region.
 3. (Amended) The transistor of claim 1 wherein the void is approximately 50 nm across.
 4. (Amended) The transistor of claim 1 wherein the void is located at a depth of approximately 1000 angstroms in the channel region.
 5. (Canceled)
 6. (Amended) The transistor of claim 1 wherein the void is located in the channel region and near an edge of the channel region adjacent to the source region.
 7. (Amended) The transistor of claim 1 wherein the void is located in the channel region near an edge of the channel region adjacent to the drain region.


8. (Amended) A transistor, comprising:
a substrate having a source region, a drain region and a channel region, in which a void is located below the source region to place one of the regions into a compressive or tensile stress to alter carrier mobility due to the stress; and
a gate region above the channel region.
9. (Amended) The transistor of claim 8 wherein a void is also located below the drain region.
10. (Amended) The transistor of claim 9 wherein the source and drain regions are under compressive stress.
11. (Amended) The transistor of claim 8 wherein the source region is under tensile stress.
12. (Amended) The transistor of claim 8 wherein the drain region is under compressive stress.
13. (Amended) The transistor of claim 8 wherein the gate region is polysilicon.
14. (Amended) The transistor of claim 8 wherein the gate region is metal.
15. (Amended) A transistor comprising:
a substrate having a source region, a drain region and a channel region; and
a gate region having a void to place the substrate under mechanical stress to alter carrier mobility due to the stress.
16. (Canceled)
17. (Amended) The transistor of claim 15 wherein the gate region is polysilicon.
18. (Amended) The transistor of claim 15 wherein the gate region is metal.

If there are any additional charges, please charge Deposit Account No. 02-2666.

Respectfully submitted,

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